

PA6.12 – Polyamide 6.12 PA6.12 GF30

AKROMID® D3 GF 30 1 LT black (5391)

Tensile modulus

9200 MPa

1 mm/min

ISO 527-2

Stress at break

170 MPa

5 mm/min

ISO 527-2

Charpy impact strength

85 kJ/m²

23°C

ISO 179-1/1eU

AKROMID® D3 GF 30 1 LT black (5391) is a 30% glass fibre reinforced, heat stabilised polyamide 6.12 with lower moisture absorption and high chemical resistance. The product is laser-transparent.

Typical applications

Quick connectors of fluid-carrying tubes in the automotive industry.

**Mechanical Properties**

Tensile modulus (1 mm/min | ISO 527-2)

d.a.m.

9200 MPa

conditioned

6700 MPa

Stress at break (5 mm/min | ISO 527-2)

d.a.m.

170 MPa

conditioned

120 MPa

Strain at break (5 mm/min | ISO 527-2)

d.a.m.

3,5 %

conditioned

4,5 %

Charpy impact strength (23°C | ISO 179-1/1eU)

d.a.m.

85 kJ/m²

conditioned

87 kJ/m²

Charpy notched impact strength (23°C | ISO 179-1/1eA)

d.a.m.

15 kJ/m²

conditioned

20 kJ/m²**Thermal Properties**

Temperature of deflection under load HDT/A (1,8 MPa | ISO 75)

200 °C

Melting temperature (DSC, 10K/min | DIN EN 11357-1)

215 °C

**Flammability**

Burning rate (<100 mm/min) (> 1 mm Thickness | FMVSS 302)

+

**General properties**

Density (23°C | ISO 1183)

1,31 g/cm³

Humidity absorption (70°C, 62% r.H. | ISO 1110)

1,41 %

Molding shrinkage (flow | ISO 294-4)

0,3-0,5 %

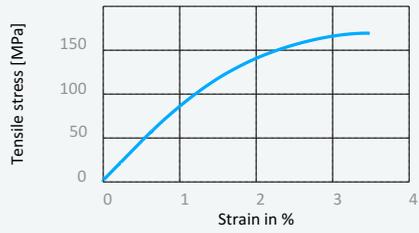
Molding shrinkage (transverse | ISO 294-4)

0,7-0,9 %

Disclaimer:

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Stress strain chart at 23°C



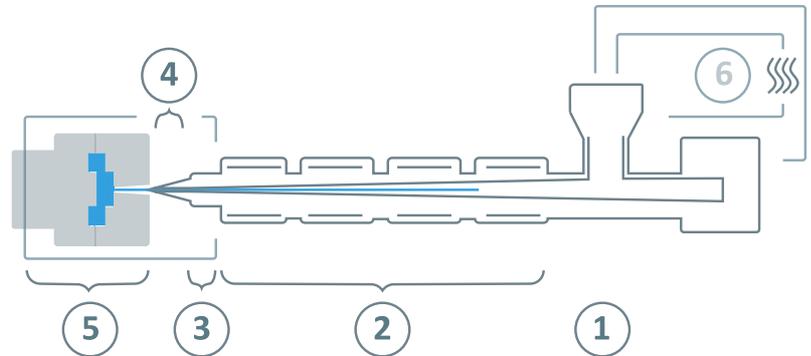
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AKROMID® D3 GF 30 1 LT black (5391)**Processing information**

The listed values are recommendations. Higher values should be used for higher glass loadings. We recommend only dehumidifying or vacuum dryers. Extensive drying can cause filling problems and surface defects.



⑥	Drying time	0 - 4 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80°C
	Processing moisture	0,02 - 0,1%
①	Feed section	60 - 80°C
②	Temperature zone 1 - Zone 4	230 - 290°C
③	Nozzle temperature	240 - 300°C
④	Melt temperature	270 - 290°C
⑤	Mold temperature	80 - 100°C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min

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